
HAEMOPHILUS INFLUENZAE, INVASIVE DISEASE

Clinical Features: Several clinical syndromes including meningitis, septic arthritis, epiglottitis, cellulitis, bacteremia, and pneumonia may characterize invasive infection. Symptoms of meningitis may include fever, headache, lethargy, vomiting, and stiff neck. Other symptoms depend on the part of the body affected.

Causative Agent: *Haemophilus influenzae*, a gram-negative bacterium with six serotypes (a through f)

Mode of Transmission: Found in the upper respiratory tract of humans, the organism may be transmitted by direct contact or droplet inhalation of respiratory tract secretions.

Incubation Period: Unknown; probably short, 2-4 days.

Period of Communicability: As long as organisms are present, which may be for a prolonged period, even without nasal discharge. Considered noncommunicable within 24-48 hours after starting effective antibiotic therapy.

Public Health Significance: Before *H. influenzae* type B (HiB) conjugate vaccinations, *H. influenzae* type B was the leading cause of invasive diseases among children under 5 years of age. Immunization has been an effective method of limiting invasive HiB disease. Preventive antibiotics may prevent illness in close contacts to known cases of HiB, especially susceptible children.

Reportable Disease in Kansas Since: 1997

Laboratory Criteria for Surveillance Purposes

- Isolation of *H. influenzae* from a normally sterile site, such as blood, bone, joint, pericardial fluid, peritoneal fluid, or spinal fluid. (Note: Positive antigen test results from urine or serum samples are unreliable for diagnosis of *H. influenzae*.)

Surveillance Case Definitions

- *Confirmed:* A clinically compatible case that is laboratory confirmed.
- *Probable:* A clinically compatible case with detection of *H. influenzae* type B antigen in CSF.

Epidemiology and Trends

2005 Kansas Count: 18

	<i>Rate per 100,000</i>	<i>95% CI</i>
Kansas Rate	0.7	(0.4 – 1.0)
U.S. Rate (2004)	0.7	NA

In 2005, there were 18 reported cases of invasive *Haemophilus influenzae* infections in Kansas, an increase from the eight cases reported in 2004. The three-year median for 2002-2004 was eight cases; since 1997 there have been zero to 18 cases reported annually. The cases ranged from eight to 94 years of age.

No cases of HiB were reported.